

<110> Heston, Warren D.W.
O'Keefe, Denise S.

<120> DNA Encoding the Prostate-Specific Membrane
Antigen-Like Gene and Uses Thereof

<130> D6230

<141> 2001-10-09

<150> PCT/US00/09417
<151> 2000-04-09

<160> 38

<210> 1
<211> 1992
<212> DNA
<213> *Homo sapiens*
<223> cDNA sequence of PSMA-like gene

<400> 1

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aaagtccttc	cccagagttc	agtggcatgc	ccaggataag	caaattggga	1150
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<210>      2
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<220>
<223>     deduced amino acid sequence of PSMA-like
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Thr Gln Lys Val Lys Met His Ile His Ser Thr Asn Glu Val Thr
          35                      40                      45
Arg Ile Tyr Asn Val Ile Gly Thr Leu Arg Gly Ala Val Glu Pro
          50                      55                      60
Asp Arg Tyr Val Ile Leu Gly Gly His Arg Asp Ser Trp Val Phe
          65                      70                      75
Gly Gly Ile Asp Pro Gln Ser Gly Ala Ala Val Val His Glu Thr
          80                      85                      90
Val Arg Ser Phe Gly Thr Leu Lys Lys Glu Gly Trp Arg Pro Arg
          95                     100                     105
Arg Thr Ile Leu Phe Ala Ser Trp Asp Ala Glu Glu Phe Gly Leu
          110                     115                     120
Leu Gly Ser Thr Glu Trp Ala Glu Asp Asn Ser Arg Leu Leu Gln
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Glu Arg Gly Val Ala Tyr Ile Asn Ala Asp Ser Ser Ile Glu Gly
          140                     145                     150

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Val Tyr Asn Leu Thr Lys Glu Leu Lys Ser Pro Asp Glu Gly Phe	170	175	180
Glu Gly Lys Ser Leu Tyr Glu Ser Trp Thr Lys Lys Ser Pro Ser	185	190	195
Pro Glu Phe Ser Gly Met Pro Arg Ile Ser Lys Leu Gly Ser Gly	200	205	210
Asn Asp Phe Glu Val Phe Phe Gln Arg Leu Gly Ile Ala Ser Gly	215	220	225
Arg Ala Arg Tyr Thr Lys Asn Trp Glu Thr Asn Lys Phe Ser Gly	230	235	240
Tyr Pro Leu Tyr His Ser Val Tyr Glu Thr Tyr Glu Leu Val Glu	245	250	255
Lys Phe Tyr Asp Pro Met Phe Lys Tyr His Leu Thr Val Ala Gln	260	265	270
Val Arg Gly Gly Met Val Phe Glu Leu Ala Asn Ser Ile Val Leu	275	280	285
Pro Phe Asp Cys Arg Asp Tyr Ala Val Val Leu Arg Lys Tyr Ala	290	295	300
Asp Lys Ile Tyr Asn Ile Ser Met Lys His Pro Gln Glu Met Lys	305	310	315
Thr Tyr Ser Leu Ser Phe Asp Ser Leu Phe Ser Ala Val Lys Asn	320	325	330
Phe Thr Glu Ile Ala Ser Lys Phe Ser Glu Arg Leu Gln Asp Phe	335	340	345
Asp Lys Ser Asn Pro Ile Leu Leu Arg Met Met Asn Asp Gln Leu	350	355	360
Met Phe Leu Glu Arg Ala Phe Ile Asp Pro Leu Gly Leu Pro Asp	365	370	375
Arg Pro Phe Tyr Arg His Val Ile Tyr Ala Pro Ser Ser His Asn	380	385	390
Lys Tyr Ala Gly Glu Ser Phe Pro Gly Ile Tyr Asp Ala Leu Phe	395	400	405

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T0607-23E-660

Asn	Phe	Thr	Gln	Ile	Pro	His	Leu	Ala	Gly	Thr	Glu	Gln	Asn	Phe	80	85	90
Gln	Leu	Ala	Lys	Gln	Ile	Gln	Ser	Gln	Trp	Lys	Glu	Phe	Gly	Leu	95	100	105
Asp	Ser	Val	Glu	Leu	Ala	His	Tyr	Asp	Val	Leu	Leu	Ser	Tyr	Pro	110	115	120
Asn	Lys	Thr	His	Pro	Asn	Tyr	Ile	Ser	Ile	Ile	Asn	Glu	Asp	Gly	125	130	135
Asn	Glu	Ile	Phe	Asn	Thr	Ser	Leu	Phe	Glu	Pro	Pro	Pro	Pro	Gly	140	145	150
Tyr	Glu	Asn	Val	Ser	Asp	Ile	Val	Pro	Pro	Phe	Ser	Ala	Phe	Ser	155	160	165
Pro	Gln	Gly	Met	Pro	Glu	Gly	Asp	Leu	Val	Tyr	Val	Asn	Tyr	Ala	170	175	180
Arg	Thr	Glu	Asp	Phe	Phe	Lys	Leu	Glu	Arg	Asp	Met	Lys	Ile	Asn	185	190	195
Cys	Ser	Gly	Lys	Ile	Val	Ile	Ala	Arg	Tyr	Gly	Lys	Val	Phe	Arg	200	205	210
Gly	Asn	Lys	Val	Lys	Asn	Ala	Gln	Leu	Ala	Gly	Ala	Lys	Gly	Val	215	220	225
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Thr Leu Arg Gly Ala Val Glu Pro Asp Arg Tyr Val Ile Leu Gly	365	370	375
Gly His Arg Asp Ser Trp Val Phe Gly Gly Ile Asp Pro Gln Ser	380	385	390
Gly Ala Ala Val Val His Glu Ile Val Arg Ser Phe Gly Thr Leu	395	400	405
Lys Lys Glu Gly Trp Arg Pro Arg Arg Thr Ile Leu Phe Ala Ser	410	415	420
Trp Asp Ala Glu Glu Phe Gly Leu Leu Gly Ser Thr Glu Trp Ala	425	430	435
Glu Glu Asn Ser Arg Leu Leu Gln Glu Arg Gly Val Ala Tyr Ile	440	445	450
Asn Ala Asp Ser Ser Ile Glu Gly Asn Tyr Thr Leu Arg Val Asp	455	460	465
Cys Thr Pro Leu Met Tyr Ser Leu Val His Asn Leu Thr Lys Glu	470	475	480
Leu Lys Ser Pro Asp Glu Gly Phe Glu Gly Lys Ser Leu Tyr Glu	485	490	495
Ser Trp Thr Lys Lys Ser Pro Ser Pro Glu Phe Ser Gly Met Pro	500	505	510
Arg Ile Ser Lys Leu Gly Ser Gly Asn Asp Phe Glu Val Phe Phe	515	520	525
Gln Arg Leu Gly Ile Ala Ser Gly Arg Ala Arg Tyr Thr Lys Asn	530	535	540
Trp Glu Thr Asn Lys Phe Ser Gly Tyr Pro Leu Tyr His Ser Val	545	550	555
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<212> DNA
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<220>
<221> primer_bind
<223> antisense primer designed for only
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<400> 6
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<210> 7
<211> 20
<212> DNA
<213> Artificial sequence

<220>
<221> primer_bind
<223> sense oligonucleotide primer based upon
intronic sequences of the PSMA genomic
clone used to amplify the corresponding
regions of the PSMA-like gene (exon 2)

<400> 7
ctcacctaatt gtcagaggta 20

<210> 8
<211> 20
<212> DNA
<213> Artificial sequence

<220>
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<223> antisense oligonucleotide primer based upon
intronic sequences of the PSMA genomic
clone used to amplify the corresponding
regions of the PSMA-like gene (exon 2)

<400> 8
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<210> 9
<211> 24
<212> DNA
<213> Artificial sequence

<220>
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<223> sense oligonucleotide primer based upon
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clone used to amplify the corresponding
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<400> 9
caaagtactt ttgtgtaact ctgc 24

<210> 10
<211> 22
<212> DNA
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<220>
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<400> 10
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<210> 11
<211> 22
<212> DNA
<213> Artificial sequence

<220>
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<223> sense oligonucleotide primer based upon
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clone used to amplify the corresponding
regions of the PSMA-like gene (exon 4)

<400> 11
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<210> 12
<211> 24
<212> DNA
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<220>
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regions of the PSMA-like gene (exon 4)

<400> 12
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<210> 13
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<220>
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<223> sense oligonucleotide primer based upon
intronic sequences of the PSMA genomic
clone used to amplify the corresponding
regions of the PSMA-like gene (exons 5-6)

<400> 13
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<210> 14
<211> 22
<212> DNA
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<220>
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<223> antisense oligonucleotide primer based upon
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clone used to amplify the corresponding
regions of the PSMA-like gene (exons 5-6)

<400> 14
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<210> 15
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<220>
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clone used to amplify the corresponding
regions of the PSMA-like gene (exon 7)

<400> 15
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<210> 16
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 <400> 16
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 <210> 17
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 <400> 18
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 <210> 19
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 <212> DNA
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<400> 19
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<210> 20
 <211> 22
 <212> DNA
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<400> 20
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<210> 21
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<210> 22
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 <212> DNA
 <213> Artificial sequence

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<400> 22
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<210> 23
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<212> DNA
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<400> 23
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<210> 24
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<212> DNA
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<210> 25
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<220>
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<210> 26
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<400> 26
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<210> 27
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 <212> DNA
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<220>
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<210> 28
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 <212> DNA
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<210> 29
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 <212> DNA
 <213> Artificial sequence

 <220>
 <221> primer_bind
 <223> sense oligonucleotide primer based upon
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 regions of the PSMA-like gene (exon 15)

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 <210> 30
 <211> 21
 <212> DNA
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 <220>
 <221> primer_bind
 <223> antisense oligonucleotide primer based upon
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 clone used to amplify the corresponding
 regions of the PSMA-like gene (exon 15)

 <400> 30
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 <210> 31
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 <212> DNA
 <213> Artificial sequence

 <220>
 <221> primer_bind
 <223> sense oligonucleotide primer based upon
 intronic sequences of the PSMA genomic
 clone used to amplify the corresponding
 regions of the PSMA-like gene (exons 16-17)

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 <210> 32
 <211> 22
 <212> DNA
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<220>
 <221> primer_bind
 <223> antisense oligonucleotide primer based upon
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 clone used to amplify the corresponding
 regions of the PSMA-like gene (exons 16-17)

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<210> 33
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 <213> Artificial sequence

<220>
 <221> primer_bind
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 clone used to amplify the corresponding
 regions of the PSMA-like gene (exon 18)

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<210> 34
 <211> 22
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 <213> Artificial sequence

<220>
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 clone used to amplify the corresponding
 regions of the PSMA-like gene (exon 18)

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<210> 35
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<220>
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clone used to amplify the corresponding
regions of the PSMA-like gene (exon 19)

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<210> 36
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<212> DNA
<213> Artificial sequence

<220>
<221> primer_bind
<223> antisense oligonucleotide primer based upon
intronic sequences of the PSMA genomic
clone used to amplify the corresponding
regions of the PSMA-like gene (exon 19)

<400> 36
ttcagtttta atccataggg ag 22

<210> 37
<211> 24
<212> DNA
<213> Artificial sequence

<220>
<221> primer_bind
<223> sense primer (exon 10) used for performing
PCR on cDNAs from various tissues

<400> 37
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<210> 38
<211> 24
<212> DNA
<213> Artificial sequence

<220>
<221> primer_bind
<223> antisense primer (exon 16) used for
performing PCR on cDNAs from various
tissues

<400> 38
actgtgatac agtggatagc cgct 24